

LIST OF CURRENT CLAIMS

1. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, the multifunctional vibrating actuator having a diaphragm, a magnetic circuit that is positioned facing the diaphragm and that forms a magnetic path, a suspension that supports the magnetic circuit, a housing that supports the diaphragm and the suspension, and a voice coil that produces magnetic drive that operates between the diaphragm and the magnetic circuit, and having terminals that are attached to the housing and that are electrically connected to the voice coil, the structure for mounting comprises:

a bracket fixed to the surface of the circuit board by solder reflow, the bracket including a cut-out portion.

wherein the housing of the multifunctional vibrating actuator includes a tab to be engaged with the cut-out portion of the bracket and is detachable from the bracket to allow the bracket to be fixed on the surface of the circuit board without the multifunctional vibrating actuator,

wherein the housing of the multifunctional vibrating actuator is mounted on the surface of the circuit board using the bracket, wherein the bracket is fixed on the surface of the circuit board with the terminals attached to the housing electrically connected to the circuit board prior to the multifunctional vibrating actuator being mounted to the bracket.

2. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, in which a mounting position of the multifunctional vibrating actuator relative to the circuit board is set on a surface near one end of the circuit board, and in which there is a projection on a surface of a bracket that faces the circuit board, the bracket being fixed by solder reflow to the surface of the circuit board while the bracket is being held in place on the surface of the circuit board by the projection, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator with the tab is detachable from the cut-out portion of bracket and is mountable on the circuit board using the bracket after the

bracket is fixed to the circuit board by solder reflow to avoid exposing the multifunctional vibrating actuator to solder reflow.

3. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, in which a surface of a bracket that faces the circuit board has two or more convex contacts that contact solder applied to the surface of the of the circuit board and are fixed by solder reflow, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable to the bracket, and wherein the bracket is fixed to the circuit board by solder reflow prior to the multifunctional vibrating actuator being mounted to the bracket to avoid exposing the multifunctional vibrating actuator to solder reflow.

4. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, in which multiple bracket contacts are set at an edge of a bracket, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable on the circuit board using the bracket after the bracket is fixed to the circuit board.

5. (Currently Amended) A structure including a bracket for mounting a multifunctional vibrating actuator on a circuit board, in which flat electrodes formed on a surface of the circuit board are formed with different ratios of length measurement to width measurement, and a positive electrode and a negative electrode have positions that are the same in a length direction and that are the same distance from an edge of the circuit board, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable on the circuit board using the bracket after the bracket is fixed to the circuit board.

6. (Currently Amended) A structure including a bracket for mounting a multifunctional vibrating actuator on a circuit board, in which flat electrodes formed on a surface of the circuit board are formed with different ratios of length measurement to width measurement, and a positive electrode and a negative electrode have positions that differ in a length direction, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable on the circuit board using the bracket after the bracket is fixed to the circuit board.

7. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, in which a bracket is formed in a dish shape, with a bottom part and a rim that rises from the edge of the bottom part, an end of a housing of the multifunctional vibrating actuator being fitted to the rim to attach the bracket to the housing, there being a tab on the end of the housing that fits with the rim and multiple first cut-outs in the rim of the bracket that fit with the tab of the housing, the multiple first cut-outs being formed as a unit connected by a second cut-out lower than a height of the multiple first cut-outs,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable on the circuit board using the bracket after the bracket is fixed to the circuit board.

8. (Currently Amended) A structure for mounting a multifunctional vibrating actuator on a circuit board, in which a flat surface of a bracket is formed with an unequal length/width ratio, and there are on the flat surface of a bracket on a longer axis of a length/width ratio two or more convex contacts that contact the solder applied to the surface of the circuit board and that are fixed by solder reflow, the bracket including a cut-out portion, and the multifunctional vibrating actuator including a tab to be engaged with the cut-out portion of the bracket when the multifunctional vibrating actuator is mounted to the bracket,

wherein the multifunctional vibrating actuator is detachable from the bracket and is mountable on the circuit board using the bracket after the bracket is fixed to the circuit board by solder reflow to avoid exposing the multifunctional vibrating actuator to solder reflow.

9. (Previously Presented) A portable terminal equipment in which the multifunctional vibrating actuator having the mounting structures described in claims 1 through 8 to mount the multifunctional vibrating actuator on the circuit board.